DECISION MEMO
Charles C. Deam Wilderness Invasive
Plant Species Control Project

USDA Forest Service, Eastern Region, Hoosier National Forest
Brownstown Ranger District
Monroe, Jackson, and Brown Counties, Indiana
(T6N, R1E; T7N, R1E; T7N, R2E)

I. DECISION

A. Description of Decision

My decision is to control invasive plant infestations of garlic mustard (*Alliaria petiolata*), Japanese stilt grass (*Microstegium vimineum*), multiflora rose (*Rosa multiflora*), and periwinkle (*Vinca minor*) within the Charles C. Deam Wilderness and the adjacent Tower Ridge Road corridor. The purpose of the project is to control non-native invasive plant infestations by removing plants using hand or mechanical methods in selected locations of the project area. These control treatments would continue in following years to prevent seed production until depletion of the seed bank occurs, potentially 2-5 years or longer depending on need and funding. In addition, future field surveys for invasive plant species would continue in selected areas of the project area. Effectiveness monitoring of the proposed treatment areas is also to be part of the project.

If we locate additional invasive species populations within the project area, we would include the new areas for treatment where feasible. The control methods used for these areas would be similar to those described below, depending on their location and the constraints of the management area where they occur. The Hoosier National Forest has 37 species listed as invasive plants based on inventories conducted across the forest (Larson 2002). Future treatment for new infestations found within the wilderness may come from this list, but we would also consider other invasive plants listed as threats in Indiana (INPAWS 2001). Regarding any future treatment to control new infestations beyond those areas identified in the attached map, we would utilize the same hand or mechanical methods and thus anticipate equivalent effects.

The project area is located in the Pleasant Run Unit, Brownstown Ranger District in Monroe, Jackson, and Brown Counties approximately 14 miles southeast of Bloomington, Indiana. The legal description of the project is T6N, R1E section 1; T7N, R1E sections 1-2, 10-16, 21-27, 34-36; T7N, R2E sections 4-5, 7-9, 14-22, 29-31. The project area consists of the wilderness and the Tower Ridge Road corridor. The *Forest Plan* designates the wilderness as management area (MA) 5.1 and the Tower Ridge Road corridor is MA 6.2.

The Tower Ridge Road corridor traverses through the wilderness and is the primary location of these invasive plant infestations. Refer to the attached map for the location of the project area and the locations of each known invasive plant infestation. These identified areas total approximately 65 acres. In some instances, the actual invasive plant infestation is smaller than indicated on the map. These polygons show the known periphery and maximum extent of each invasive species infestation. The project may include treatment to all or portions of these invasive plant populations.

Our objective is to reduce the vigor and size of these invasive plant populations, thereby minimizing the threat to native plant communities and wildlife habitat. We anticipate that these methods would have negligible effects to native species but still provide effective control of the targeted invasive plant populations.

The proposed action involves different control techniques to achieve the best results on each invasive plant species. We would use different methods depending on whether the plants occur within the wilderness or outside in the Tower Road Corridor. These methods would utilize the most practical, most efficient hand and mechanical treatment technique permitted or feasible for controlling each infestation, depending on the constraints of the management area where they occur.

Control methods by invasive plant species and management area include:

- Garlic mustard (*Alliaria petiolata*) - use power "weed whacker" or hand tools to cut plants before seed set at ground level, and/or burn plants with hand-held propane torches in MA 6.2. In MA 5.1, cut plants using hand tools and/or use hand-held propane torches. Hand pulling of outlying plants would occur in both management areas. Remove cuttings from the site after treatment.

- Multiflora rose (*Rosa multiflora*) - use hand tools to cut plants multiple times throughout the growing season before fruiting or seed set. Other techniques for control may include digging and using hand-held propane torches on small populations and individual plants. The documented infestation occurs in MA 5.1.

- Periwinkle (*Vinca minor*) - use hand tools to cut plants at ground level or pull manually by hand. We would also consider using hand-held propane torches in some areas, if practical and suitable. Remove cuttings from the site after treatment or use disposal techniques necessary to prevent re-establishment of the plants. Documented infestations occur in MA 5.1.

- Stilt grass (*Microstegium vimineum*) - use power "weed whacker" or mowers to cut plants in late summer before seed set at ground level in MA 6.2. In MA 5.1, cut plants using hand tools or pull manually by hand in late summer before seed set. Using hand-held propane torches may occur in both management areas, where feasible and appropriate.

- Future invasive plant treatment (if we locate other infestations and if using these control methods is feasible within the project area) - treatments outside of the wilderness might include the use of power tools or hand-held propane torches, but any treatment within the wilderness (MA 5.1) would utilize only hand pulling, hand tool techniques, or hand-held propane torches. Depending on invasive species, cuttings could remain or be removed after treatment.

Project mitigation measures include:

Near one of these treatment areas is a site where a plant listed as Regional Forester Sensitive Species (RFSS) exists in a small subpopulation. Placement of an adequate buffer and close supervision during implementation of the control activities in this area will occur to provide protection to these plants. If during any phase of the project botanists locate new populations of sensitive plant species, we would take appropriate action to either avoid the plants or modify the treatment methods for their protection. Additionally, we would provide protection for all other rare plant populations that occur in close proximity to any future invasive control treatment areas outside of those identified above.

Similarly, before implementing invasive control treatment in areas other than those infestations identified above, biologists would evaluate the effects of these activities on all threatened, endangered, and sensitive animal species. We would apply appropriate mitigations measures and protection as needed.

If observation of features such as foundation stones, wells, dump areas, and other possible historic evidence does occur while implementing the project or during treatments in any subsequent control areas, we would record these site location, and inform the forest archaeologist.

B. Purpose of Decision

The purpose of the project is to control non-native invasive plant infestations of garlic mustard, multiflora rose, periwinkle, and stilt grass by removing plants using hand or mechanical methods within selected areas of the Charles C. Deam Wilderness. The interdisciplinary team selected these four non-native invasive plant species for treatment because of their high threat to forest communities and the good probability of success by using these hand and mechanical control methods. Our objective is to reduce the vigor and size of these invasive plant populations, thereby minimizing the threat to native plant communities and wildlife habitat, and thus improve biological diversity. We anticipate that these methods would have negligible effects to native species, but still provide effective control of the targeted invasive plant populations.

The Indiana Department of Natural Resources Division of Nature Preserves (DNP) conducted surveys and recommended control measures for invasive plant species on selected areas of the Hoosier National Forest (HNF), which included the Charles C. Deam Wilderness (Hedge and Homoya 2000; Hedge 2002). These reports and their recommended treatment provided the basis for the proposed action. The report lists the wilderness as a high-risk site because of the degree of risk to the surrounding natural plant communities. For these invasive plant infestations, recommended treatment priorities range from low to high depending on the individual site. The project includes treatment of all sites identified as a high priority, as well as some other sites with lower priority ratings.

Some of these invasive plant populations have become monocultures lacking species diversity, which inhibits the use of these areas by wildlife and native plants. Control of these infestations fulfills the need of improving habitat conditions degraded by these invasive plants, and begins the process of restoring the ecosystem before their continued spread becomes unmanageable.

We refer to the targeted plant infestations as non-native invasive plants. Other appropriate synonyms for these plants are exotic, alien, weed, or undesirable species. The state of Indiana defines "exotic plants" as plants not native to the area under consideration. They further define "invasive plants" as plants, native or exotic, with an exceptional ability to establish and to take over existing vegetation (IDNR 2002). The Federal government defines an "invasive species" as a species that is non-native (or alien) to the ecosystem under consideration, and whose introduction causes or is likely to cause economic or environmental harm or harm to human health (Executive Order 13112 Feb 1999).

All four plant species originated in either Europe or Asia, making them obvious introductions to the project area and native ecosystem. The Region 9 Forest Service office ranks these four non-native species as either highly invasive or moderately invasive (USDA FS 2003). The plants on the category 1 highly invasive list are non-native plants that invade natural habitats and replace native species. Category 2 moderately invasive plants are less invasive, and if significantly replacing native species, then they are doing so only in local areas. A pamphlet identifying invasive plants in Indiana also lists the four species in the project proposal as invasive (INPAWS 2001). Based on this reasoning, we have targeted these four species. Upon locating other invasive plants within the project area, we may treat these infestations by the same methods when it is possible and feasible to achieve similar objectives.

Federal agencies are required to use relevant programs and authorities to prevent the introduction of invasive species and provide for their control (Executive Order 13112 Feb 1999). The Forest Service Manual (FSM) 2080.5 defines 'noxious weeds' as, "those plant species designated as noxious weeds by the Secretary of Agriculture or by the responsible State official. Noxious weeds generally possess one or more of the following characteristics: aggressive and difficult to manage, poisonous, toxic, parasitic, a carrier or host of serious insects or disease and being native or new to or not common to the United States or parts thereof" (USDA FS 1995). The Forest Service (FS) policy definition encompasses invasive, aggressive, undesirable, or non-native or exotic plant species under the term "noxious weeds" (USDA FS 1998).

This project is consistent with the *Forest Plan*. The *Forest Plan* meets the requirements of the National Forest Management Act (NFMA) of 1976. The project moves the area toward the desired future condition (DFC) as described by the goals, objectives, and guidance for Management Area 5.1 and 6.2 (*Forest Plan*, p. 2-36 to 2-41). The project meets Forest-wide goals and guidance (*Forest Plan*, pp. 2-2 through 2-13) that calls for protecting and managing ecosystems by providing diverse ecosystems, while emphasizing native plant and animal species. Restoration of native plant and animal communities and natural ecosystems is another major emphasis of this goal. Implementing the project would be the first step in meeting these objectives. Other similar project proposals dealing with exotic or invasive plant species outside of the wilderness and project area may tier to the findings of this decision, but would require individual project evaluation and documentation. The project proposal for these targeted species is consistent with Forest Service policy direction to control and monitor invasive or noxious weed infestations.

II. REASONS FOR CATEGORICALLY EXCLUDING THE DECISION

Decisions may be categorically excluded from documentation in an environmental impact statement (EIS) or environmental assessment (EA) when they are within one of the categories identified by the U.S. Department of Agriculture in 7 CFR part 1b.3 or one of the categories identified by the Chief of the USDA Forest Service in USDA Forest Service Handbook (FSH) 1909.15 sections 31.1b or 31.2, and there are no extraordinary circumstances related to the proposed action.

A. Category of Exclusion

This project is within the category of exclusion found in Forest Service Handbook (FSH) 1909.15-31.2(6) that include "timber stand and/or wildlife habitat improvement activities which do not include the use of herbicide or do not require more than one mile of low standard road construction."

The Forest Service considers seven resource conditions in determining whether extraordinary circumstances related to the proposed action warrant further analysis and documentation in EA or EIS. Per FSH 1901.15 published on 23 August 2002, Interim Directive 1909.15-2002-2, the mere presence of one of these resource conditions does not preclude the use of a categorical exclusion. It is the degree of the potential effect of a proposed action on the resources conditions that determines whether extraordinary circumstances exist. The following discussion of these resource conditions relates to the project activities for treatment of the targeted species, as well as any other future treatment of invasive plants that may occur within the project area by the same control methods.

B. Relationship to Extraordinary Circumstances

1. Threatened and Endangered Species or Their Critical Habitat, Proposed Species or Critical Habitat, and Forest Service Sensitive Species -

The Endangered Species Act requires that Federal activities do not jeopardize the continued existence of any species Federally listed or proposed as threatened or endangered, or result in adverse modification to such species' designated critical habitat. A biological evaluation analyzed and documented the potential effects of this decision on the Federally listed species for the Hoosier National Forest (Larson 2003a). Critical habitat does not exist within the area for any of these species, so correspondingly, the project activities does not affect critical habitat.

The biological evaluation determined that the proposed project would have "no effect" on Indiana bat, gray bat, eastern fanshell mussel, and bald eagle. None of the activities associated with this project would result in negative effects to any of these species. Since there are no effects on these species or their habitat from this project, there will likewise be no cumulative effects.

The project would have no additional effects on Indiana bat, bald eagle, gray bat, or the eastern fanshell mussel beyond those identified in the Forest's 5 April 2000 Programmatic Biological Assessment (USDA FS 2000) and the 31 July 2001 USDI Fish and Wildlife Service Biological Opinion (Pruitt 2001;USDI FWS 2001).

The biological evaluation for Regional Forester Sensitive Species resulted in a combination of findings of either no impact, beneficial impact, or may impact individuals or habitat, but not likely to cause a trend towards Federal listing or reduce viability for the population or species (Larson 2003b).

2. Floodplains, Wetlands, or Municipal Watersheds -

a. Floodplains: Executive Order 11988 directs agencies to avoid adverse impacts associated with the occupancy and modification of floodplains. As defined by this order, floodplains are, "the lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent [100-year recurrence] or greater chance of flooding in any one year." A map review validated that the project is not located in or near floodplains, and this decision will not affect floodplains (Merchant 2004).

b. Wetlands: Executive Order 11990 directs agencies to avoid adverse impacts associated with destruction or modification of wetlands. Wetlands are defined by this order as, ". . . areas inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds." The project area does include wetlands, but the nature and scale of the project activities should not have subsurface effects to the identified wetlands. A map review validated the presence of wetlands within the project area, and this decision will not significantly affect any wetland areas (Merchant 2004).

c. Municipal Watersheds: USDA Forest Service manages municipal watersheds under multiple-use prescriptions in forest plans. This project will occur in the Lake Monroe watershed, which is a municipal water supply. Based on the nature and scale of the project activities, it is unlikely that any soil will reach the major streams causing sedimentation (Merchant 2004). This decision will not affect municipal watersheds.

3. Congressionally Designated Areas -

a. Wilderness: Although this decision includes some activities within the Charles C. Deam Wilderness, completion of these invasive control measures would occur without the use of motorized equipment and mechanical transport or herbicide and biological controls. This decision authorizes the removal of invasive plants within the wilderness by the use of hand tools or hand pulling to minimize ground disturbance and is the least disruptive method to achieve the management objective (Larson 2004). The decision contributes to protecting natural conditions by beginning the process of restoring the ecosystem degraded due to non-native invasive plants. Control and removal of invasive plants not only provides benefits to wildlife and native plant communities, but improves upon the aesthetic values of the wilderness experience for forest visitors. This decision should not result in significant Wilderness-related impacts.

b. Wilderness Study Areas: There are no wilderness study areas on the Hoosier National Forest. This decision will not affect wilderness study areas.

c. National Recreation Areas: There are no national recreation areas on the Hoosier National Forest. This decision will not affect national recreation areas.

4. Inventoried Roadless Areas -

   There are no inventoried roadless areas (RARE II or *Forest Plan*) in the decision area. This decision will not affect inventoried roadless areas.

5. Research Natural Areas -

   There are no research natural areas in the decision area. This decision will not affect research natural areas. The closest research natural area, Pioneer Mothers' Memorial Forest, is about 34 miles south of the project area.

6. American Indian and Alaska Native Religious or Cultural Sites, and
7. Archaeological Sites, or Historic Properties or Areas -

   Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the effect of a project on any district, site, building, structure, or object that is included in, or eligible for inclusion in the National Register. Section 106 of the NHPA also requires Federal agencies to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. The Archaeological Resources Protection Act covers the discovery and protection of historic properties (prehistoric and historic) that are excavated or discovered in Federal lands. It affords lawful protection of archaeological resources and sites that are on public and Indian lands. The Native American Graves Protection and Repatriation Act cover the discovery and protection of Native American human remains and objects that are excavated or discovered in Federal lands. It encourages avoidance of archaeological sites that contain burials or portions of sites that contain graves through "in situ" preservation, but may encompass other actions to preserve these remains and items. This decision complies with the cited acts. After consulting with the State Historic Preservation Office, this project is not considered an undertaking requiring resource surveys according to the National Historic Preservation Act, as amended (Krieger 2001).

8. My staff and I have identified no other extraordinary circumstances related to the project.

III. PUBLIC INVOLVEMENT

To involve the public with this planning, we mailed a scoping letter about the proposal on November 2, 2001 to 489 groups, affected local agencies, individuals, and adjacent landowners who have indicated an interest in projects within the wilderness. The announcement of the project first appeared in the November 2001 issue of the *Hoosier Quarterly*, and inclusion on the Forest website. Subsequent issues of the *Hoosier Quarterly* have posted information about the status of the project.

We received seven responses during the scoping period consisting of letters, messages to voice mail, facsimile, and email. Nearly all of the comments sent to us either support the project or approve of some elements of the proposal. Some respondents had questions concerning procedures or methodology for the project. Procedural questions included the appropriateness of categorically excluding the decision and how the *Forest Plan* deals with the issue of invasive plants or the rationale for authorizing the project. Additional comments asked questions about our definition of exotic species, the process used to determine which exotic to remove, and how this project affects other exotics on the forest. Comments involving methodology suggested that we might need to continue control efforts for longer than indicated in the scoping letter for stilt grass. Another respondent wanted to know about our process of determining which method for which exotic. We have addressed these questions in Sections I and II of this document.

Others included an interest in learning more about the project, as well as an offer to assist with treatment. Lastly, some comments were beyond the scope of the project such as requesting we use herbicides or about topics not specific to the decision.

IV. FINDINGS REQUIRED BY AND/OR RELATED TO OTHER LAWS AND REGULATIONS

My decision will comply with all applicable laws and regulations. I have summarized some pertinent ones below.

Forest Plan Consistency (National Forest Management Act) - This act requires the development of long-range land and resource management plans (forest plans). The Hoosier National Forest Land and Resource Management Plan (*Forest Plan)* was approved in 1985, as required by this act. It has since been amended seven times. The amended plan provides for guidance for all natural resource management activities on the forest. The act requires all projects and activities are consistent with the *Forest Plan*. We have reviewed the *Forest Plan* in consideration of this project. This decision is responsive to guiding direction contained in the Plan, as summarized in Section I of this document.

Vegetation Manipulation (National Forest Management Act) - This act and its implementing regulations require that vegetation manipulation of tree cover for any purpose must comply with seven requirements found at 36 CFR 219.27(b). This proposal includes no vegetative manipulation of tree cover, and therefore the requirements of 36 CFR 219.27(b) is not applicable.

Endangered Species Act - See Section II, Item B1 of this document.

Sensitive Species (USDA Forest Service Manual 2670) - This manual direction requires analysis of potential impacts to sensitive species, those species for which the Regional Forester has identified population viability as a concern. The Regional Forester approved the sensitive species list on February 29, 2000, and it is available online at http://www.fs.fed.us/r9/wildlife/tes/tes_lists.htm. The biological evaluation for Regional Forester Sensitive Species analyzed the potential impacts of the project and resulted in a combination of findings of either no impact, beneficial impact, or may impact individuals or habitat, but not likely to cause a trend towards Federal listing or reduce viability for the population or species by this decision (Larson 2003b).

Clean Water Act - This act relates to restoring and maintaining the integrity of waters. The Forest Service complies with the Act through *Forest Plan* guidance (p. 2-7, *Forest Plan* Appendices J and K) and Best Management Practices (BMPs). This decision incorporates BMPs to ensure protection of soil and water resources. The February 1998 edition of the Forestry Best Management Practices Field Guide is on file at both Tell City and Bedford offices. The project does not affect rivers or streams.

Floodplains (Executive Order 11988) - See Section II, Item B2 (*a*) of this document.

Wetlands (Executive Order 11990) - See Section II, Item B2 (*b*) of this document.

Wilderness Act - See Section II, Item B3 (*a*) of this document.

Invasive Species (Executive Order 13112) - See Section I, Item B of this document.

Federal Cave Resources Protection Act - This act directs agencies to secure, protect, preserve, and maintain significant caves, to the extent practical. Site features, field and map reviews substantiate that no caves are in the treatment localities of the project area. Some caves/karst features do exist within the decision area, but project activities would have no anticipated effects to these areas. The Hoosier

National Forest will protect these caves and all other subsequently identified caves (*Forest Plan* p. 2-10 to 2-11*)*. This decision will not affect known cave resources (Harriss 2004).

National Historic Preservation Act - See Section II, Item B7 of this document.

Archaeological Resources Protection Act - See Section II, Item B7 of this document.

Native American Graves Protection and Repatriation Act - See Section II, Item B7 of this document.

Wild and Scenic Rivers Act –There are no wild or scenic rivers in the general area, and none will be affected by implementing this decision.

Environmental Justice (Executive Order 12898) - This order requires consideration of whether projects would disproportionately impact minority or low-income populations. This decision complies with this act. Public involvement occurred for this project, the results of which I have considered in making this decision. Public involvement did not identify any adversely impacted local minority or low-income populations. We do not expect this to adversely impact minority or low-income populations.

National Environmental Policy Act - This act requires public involvement and consideration of potential environmental effects. The entirety of documentation for this decision supports compliance with this act.

V. ADMINISTRATIVE REVIEW OR APPEAL

This decision is not subject to administrative appeal. It is not subject to appeal pursuant to 36 CFR 215.8 (4): Decisions for actions that have been categorically excluded from documentation in an environmental assessment or environmental impact statement in FSH 1909.15, Section 31.1 and 31.2, except as noted in 215.7(b).

VI. IMPLEMENTATION DATE

Implementation of this decision may begin immediately upon signing by the responsible official.

VII. CONTACT PERSON

For additional information about this decision contact:

Kirk W. Larson, Forest Botanist at the Hoosier National Forest Supervisor's Office (Address: 811 Constitution Avenue, Bedford, IN 47421, Voice: Office 812 275-5987, Fax: 812 279-3423).

VIII. SIGNATURE AND DATE

I have concluded that this decision may be categorically excluded from documentation in an environmental impact statement or environmental assessment because the proposal has not changed since scoping, it is within one of the categories identified by the U.S. Department of Agriculture in 7 CFR part 1b.3 or one of the categories identified by the Chief of the Forest Service in USDA Forest Service Handbook (FSH) 1909.15 sections 31.1b or 31.2, and there are no indications of effects on extraordinary circumstances that would warrant further analysis and documentation in an environmental assessment. I base my conclusion on information presented in this document and the entirety of the planning record.

/S/ *James E. Denoncour*

_____ May 7, 2004

JAMES E. DENONCOUR Date

District Ranger

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